MINULE ITEM

23. MUNICIPAL FACILITIES FOR WATER INJECTION SYSTEM, FAULT BLOCKS II AND III, CITY OF LONG BEACH, WILMINGTON FIELD - L.B.W.O. 10,079.

Following presentation of Calendar Item 30 attached, and upon motion duly made and unanimously carried, the following resolution was adopted:

THE COMMISSION APPROVES THE EXPENDITURE BY THE LONG BEACH HARBOR DEPARTMENT OF NOT TO EXCEED \$3,375,000, FOR MUNICIPALLY OWNED INJECTION WATER SUPPLY FACILITIES TO SERVE THE FOUR UPPER ZONES OF FAULT BLOCKS II AND III OF THE WILMINGTON FIELD, AS PROPOSED IN REPORT DATED MARCH 5, 1959, FROM M. A. NISHKIAN & CO. TO LONG BEACH HARBOR DEPARTMENT. THE EXPENDITURES FOR THIS PURPOSE ARE TO BE MADE ONLY FROM THE CITY OF LONG BEACH SHARE OF TIDELAND OIL TEVENUES. THIS APPROVAL IS SUBJECT TO THE CONDITION THAT ANY PLANS FOR THE LOCATION AND OFERATION OF NEW WATER SOURCE WELLS FOR THE PROJECT WILL BE SUBMITTED FOR STATE LANDS DIVISION ENGINEERING STAFF REVIEW AND APPROVAL.

Attachment Calendar Item 30 (2 pages)

CALENDAR ITEM

30,

MUNICIPAL FACILITIES FOR WATER INJECTION SYSTEM, FAULT BLOCKS II AND III, CITY OF LONG BEACH, WILMINGTON FIELD - L.B.W.O. 10,079.

On December 11, 1958 (Minute Item 20, page 4397), the Commission approved the costs, not to exceed \$100,000, to be expended by the City of Long Beach for an engineering study of a field-wide water-injection system, subject to determination by the office of the Attorney General as to whether the proposed expenditure could be authorized pursuant to Chapter 29, Statutes of 1956, 1st E.S.

In the opinion of the office of the Attorney General, the use by the City of Long Beach of its own share of tideland oil revenues to finance, engineer, construct and operate a field-wide injection water-supply system in the Wilmington Oil Field is legally unobjectionable to principle.

The Board of Harbor Commissioners of the City of Long Beach has submitted to the staff for review the final report of cost analysis and engineering design in connection with proposed water injection facilities, providing for the repressurization of the four upper zones of Fault Blocks II and III of the Wilmington Field. This injection program has been given basic appared by the State Oil and Gas Supervisor.

The City has requested the approval of the Commission for the expenditure of \$3,375,000 from the City's share of tideland oil revenues to cover the cost of construction of the surface facilities required. These facilities include source water wells, chemical treating facilities, pumping plants, and water transmission lines to the injection wells, but the cost of injection wells is not included in the request. The plant will provide 447,000 barrels of water per day at pressures ranging from 800 pounds per square inch to 1,500 pounds per square inch. The plans require the construction of two upland pumping plants, one located on the mainland and one on Terminal Island. The injection water will be produced from source wells existing in the vicinity of the pumping plants, and additional shallow aquifer wells to be drilled after coring operations have been completed. Transmission lines will transport the high-pressure water to 98 injection wells drilled into the four upper zones of Fault Blocks II and III. It is estimated that the cost per barrel of water delivered, including operation, maintenance and amortization charges, will be approximately \$0.0073 per barrel. This figure contemplates amortization of capital costs, including interest payments, over a 10-year period.

Four upland operators -- Union Pacific Railroad Company, General Petroleum Corporation, Ford Motor Company, and Southern California Edison Company-have approved and agreed to a proposal to purchase injection water from the City's plants.

IT IS RECOMMENDED THAT THE COMMISSION APPROVE THE EXPENDITURE BY THE LONG BEACH HAZBOR DEPARTMENT OF NOT TO EXCEED \$3,375,000, FOR MUNICIPALLY OWNED AND OPERATED WATER INJECTION FACILITIES TO SERVE THE FOUR UPPER ZONES OF

CALENDAR ITEM 30 (CONTD.)

FAULT BLOCKS II AND III OF THE WILMINGTON FIELD. THE EXPENDITURES ARE TO BE MADE ONLY FROM THE CITY OF LONG BEACH SHARE OF TIDELAND OIL REVENUES, AS PROPOSED IN REPORT DATED MARCH 5, 1959, FROM M. A. NISHKIAN & CO. TO LONG BEACH HARBOR DEPARTMENT. THIS APPROVAL IS TO BE SUBJECT TO THE CONDITION THAT ANY PLANS FOR THE LOCATION AND OPERATION OF NEW WATER SOURCE WELLS FOR THE SUBJECT PROJECT WILL BE SUBMITTED FOR STATE LANDS DIVISION ENGINEERING STAFF REVIEW AND APPROVAL.